

## ABSTRACT OF THE DISCLOSURE

A ground fault interrupter including a zero-phase current transformer configured to detect unbalanced current flowing in electric lines. A switch is provided in the electric lines. A detection resistor is connected in parallel to the zero-phase current transformer and configured to convert current outputted from the zero-phase current transformer to voltage. A controller is configured to determine based on the voltage of the detection resistor whether an electric leak occurs and to open the switch when the controller determines that an electric leak occurs. At least one filter is provided between the detection resistor and the controller and is configured to remove high frequency elements in the voltage of the resistor. The at least one filter includes an input side resistor connected in series to the controller and configured to limit current input to the controller; and a capacitor connected in parallel to the controller.